

Vaccine Excipient & Media Summary Part 2

Excipients Included in U.S. Vaccines, by Vaccine

Vaccine	Contains
Anthrax (BioThrax)	Aluminum hydroxide, Benzethonium chloride, Formaldehyde or formalin, Sodium chloride
BCG (Tice)	Lactose, Sodium chloride
DTaP (DAPTACEL)	Aluminum phosphate, Formaldehyde or formalin, Sodium chloride, 2-phenoxyethanol
DTaP (Infanrix)	Formaldehyde or formalin, 2-phenoxyethanol, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polysorbate 80, Sodium chloride
DTaP (Tripedia)	Aluminum potassium sulfate, Formaldehyde or formalin, Gelatin, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polysorbate 80, Sodium chloride, Thimerosal*
DTaP (Most brands)	Hydrochloric acid
DTaP/Hib (TriHIBit)	Aluminum potassium sulfate, Formaldehyde or formalin, Gelatin, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polysorbate 80, Sodium chloride, Thimerosal*, Ammonium sulfate, Sucrose
DTaP/HcpB/IPV (Pediarix)	2-phenoxyethanol, Sodium chloride, Aluminum, Formaldehyde, Polysorbate 80, Thimerosal*, Neomycin, Polymyxin B, Yeast protein
DT (Aventis)	Aluminum potassium sulfate, Formaldehyde or formalin, Sodium chloride, Thimerosal
DT (Massachusetts)	Aluminum hydroxide, Formaldehyde or formalin, Sodium chloride, Thimerosal
DT (Some brands)	Glycine, Hydrochloric acid, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium acetate, Sodium hydroxide
Hib (ACTHib)	Ammonium sulfate, Formaldehyde or formalin, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium chloride, Sucrose
Hib (PedvaxHib)	Aluminum hydroxide, Sodium chloride
Hib (HibTITER)	Yeast protein, Thimerosal (multi-dose)
Hib (Some packages)	Lactose
Hib/HepB (COMVAX)	Aluminum hydroxide, Sodium borate, Sodium chloride, Yeast protein
Hep A (Havrix)	Aluminum hydroxide, Amino acids, Bovine albumin or serum, Formaldehyde or formalin, MRC-5 cellular protein, 2-phenoxyethanol, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polysorbate 20, Sodium chloride

Appendix A

Vaccine	Contains
Hep A (Vaqta)	Aluminum hydroxide, Bovine albumin or serum, DNA, Formaldehyde or formalin, MRC-5 cellular protein, Sodium borate, Sodium chloride
Hep B (Engerix-B)	Aluminum hydroxide, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium chloride, Yeast protein, Thimerosal*
Hep B (Recombivax)	Aluminum hydroxide, Sodium chloride, Yeast protein
HepA/HepB (Twinrix)	Phosphate-buffer sodium chloride, Aluminum phosphate, Aluminum hydroxide, 2-phenoxyethanol, Amino acids, Polysorbate 20, Formalin, Thimerosal*, Yeast protein, Neomycin sulfate
Influenza (Fluvirin)	Beta-propiolactone, Egg protein, Neomycin, Polymyxin B, Polyoxyethylene 9-10 nonyl phenol (Triton N-101, octoxynol 9), Sodium chloride, Thimerosal
Influenza (Fluzone)	Egg protein, Formaldehyde or formalin, Gelatin, Polyethylene glycol p-isoctylphenyl ether (Triton X-100), Sodium chloride, Thimerosal
Influenza (FluMist)	Egg protein, Gentamicin, Monosodium glutamate, Sucrose, Potassium phosphate
Influenza (varies)	Bactopeptone
IPV (Ipol)	Formaldehyde or formalin, Neomycin, 2-phenoxyethanol, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polymyxin B, Sodium chloride, Streptomycin
Japanese Encephalitis (JE-Vax)	Formaldehyde or formalin, Gelatin, Mouse serum protein
Measles (Attenuvax)	Gelatin, Neomycin, Sorbitol
Meningococcal (Menomune)	Lactose, Thimerosal*
Mumps (Mumpsvax)	Gelatin, Neomycin, Sorbitol
MMR (MMR-II)	Gelatin, Neomycin, Sorbitol
Pneumococcal (Pneumovax)	Phenol, Sodium chloride
Pneumococcal (Prevnar)	Aluminum phosphate, Sodium chloride
Rabies (Biorab)	Aluminum phosphate, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Thimerosal
Rabies (Imovax)	Beta-propiolactone, Bovine albumin or serum, Human serum albumin, MRC-5 cellular protein, Neomycin, Phenol red (phenolsulfonphthalein), Sodium chloride, Vitamins (unspecified)
Rabies (RabAvert)	Amphotericin B, Beta-propiolactone, Bovine albumin or serum, Chlortetracycline, Ethylenediamine-tetraacetic acid sodium (EDTA), Gelatin, MRC-5 cellular protein, Neomycin, Ovalbumin, Potassium glutamate, Sodium chloride

Vaccine	Contains
Rubella (Meruvax II)	Gelatin, Neomycin, Sorbitol
Td (Aventis)	Aluminum potassium sulfate, Formaldehyde or formalin, Sodium chloride, Thimerosal, (may contain Glycine, Sodium acetate, Sodium hydroxide)
Td (Massachusetts)	Aluminum hydroxide, Aluminum Phosphate, Formaldehyde or formalin, Sodium chloride, Thimerosal, (may contain Glycine, Sodium acetate, Sodium hydroxide)
Typhoid (inactivated – Typhim Vi)	Phenol, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polydimethylsiloxane, Sodium chloride
Typhoid (oral – TY21a)	Amino acids, Ascorbic acid, Gelatin, Lactose, Magnesium stearate, Sucrose
Vaccinia (DryVax)	Bovine albumin or serum, Brilliant green, Chlortetracycline, Glycerin, Neomycin, Phenol, Polymyxin B, Streptomycin
Varicella (Varivax)	Bovine albumin or serum, Ethylenediamine-tetraacetic acid sodium (EDTA), Gelatin, Monosodium glutamate, MRC-5 cellular protein, Neomycin, Phosphate buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium chloride, Sucrose
Yellow Fever (YF-Vax)	Egg protein, Gelatin, Sodium chloride, Sorbitol

Where "thimerosal" is marked with an asterisk () it indicates that the product should be considered equivalent to thimerosal-free products. This vaccine may contain trace amounts (<3 mcg) of mercury left after post-production thimerosal removal, but these amounts have no biological effect.
JAMA 1999;282(18) and *JAMA* 2000;283(16).

Adapted primarily from Grabenstein JD. Immunofacts: Vaccines & Immunologic Drugs. St. Louis: Facts and Comparisons, August 2002.